f. Bell Atlantic's Inflation Factor

38. Direct Cases. Bell Atlantic states that it may have used an inflation factor to adjust vendor prices in developing the investment on which its recurring rates are based. According to Bell Atlantic, such a factor may have been used in cases where vendors price lists are different from the previous year.[174] In addition, Bell Atlantic's calculations reveal that its AC power costs are adjusted by an inflation factor equal to 11.20 percent.[175]

39. Oppositions. MFS argues that Bell Atlantic does not quantify or justify the inflation factors it uses to adjust its costs. MFS further asserts that the 11.20 percent factor Bell Atlantic uses to adjust AC power is excessive in comparison to the Gross National Product Price Index that reflected an annual rate of inflation equal to 1.019 percent for the second half of 1992.[176]

40. Rebuttals. Bell Atlantic claims that the inflation factor it uses to adjust vendor price lists is the actual historical price trend for the type of equipment being procured.[177] Bell Atlantic adds that it derives the 11.2 percent inflation factor that it uses to adjust the cost of AC power on the basis of data from the Department of Energy showing the actual annual increases in electric power charges.[178]

2. US West's and SWB's Common Construction Costs

41. Direct Cases. US West's nonrecurring common construction cost consists of (1) the material and the labor to install an alternating current 120/208 volt electrical panel and feed wiring to the interconnector's cage; (2) a 20 percent contingency percentage multiplied by and added to the cost of the panel and the feeder to account for unknown barriers and obstacles that require additional labor and materials; (3) an American With Disabilities Act (ADA) percentage of 20 percent multiplied by, and added to, the sum of the cost of the panel, the feeder, and the contingency amount to reflect the costs of complying with the provisions of the ADA; and (4) a professional engineering services percentage of 15 percent multiplied by, and added to, the cost of the panel, feeder, contingency amount, and the ADA amount.[179] SWB estimates costs for small, medium and large central offices based on a sample comprised

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[174] Bell Atlantic Direct Case, Attachment B at 2.

[175] Bell Atlantic Direct Case, Attachment B, Exhibit 14.

[176] MFS Opposition at 4-5.

[177] Bell Atlantic Rebuttal at A-4.

[178] *Id.*

[179] US West Direct Case at 11-12.

of 27 of the 127 central offices tariffed for physical collocation.[180] SWB's nonrecurring charges for construction include contractor labor, SWB's project engineer, outside consultant's labor and contracted construction observer's time.[181] SWB increases its construction costs by 10 percent to account for unforeseen conditions.[182]

42. Oppositions. ALTS, MFS, Sprint and TDL argue that US West does not justify the allowances for the construction contingency percentage, the ADA percentage and the professional engineering consulting service percentage in developing its nonrecurring common construction costs.[183] TDL states that it would be more appropriate for US West to impose a surcharge to recover the actual cost for any unique contingencies than to require that all interconnectors pay an extra 20 percent to protect US West against the possibility that an unexpected obstacle may arise. TDL further adds that unknown barriers are particularly unlikely because US West's central offices are specifically designed for the type of construction and use to which they would be put by interconnectors.[184]

43. Rebuttals. US West contends that the use of a construction contingency is common in construction projects which are handled through a bidding process that generally prevents the bidding entities from securing payment in excess of the bid. Therefore, US West asserts, the bid contains some kind of contingency factor which may or may not be disclosed to the entity receiving the bid to protect the bidder against unforeseen construction problems that may develop.[185] US West contends that its ADA contingency factor is also reasonable because the space for expanded interconnection service is likely to be located in vacant space within a central office building and that it would have had no reason to render such space ADA-compliant were it not for the occupancy of that space by interconnectors.[186] US West defends its professional engineering consultant factor on the grounds that the services of such a consultant are needed in order to certify compliance with certain health and safety code regulations of state and local governments with regard to the design and construction of the leased physical space and that it does not maintain on its own payroll architects or engineers whose job activities include verifying construction-activity compliance.[187]

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[180] SWB Direct Case, Appendix 3.

[181] *Id.*

[182] *See* Letter from William A. Blase, Jr., Southwestern Bell, to Carol Canteen, Tariff Division, Common Carrier Bureau (dated May 21, 1993).

[183] ALTS Opposition at 24; MFS Opposition 19; Sprint Opposition, Appendix A at 3; TDL Opposition at 9.

[184] TDL Opposition at 9.

[185] US West Rebuttal at 43.

[186] *Id.*

[187] US West Rebuttal at 42.

3. Charges for Repeaters and POT Bays

a. POT Bays

44. Direct Cases. Ameritech, BellSouth, NYNEX, Pacific, SNET, SWB and US West include the POT bay as part of the investment on which their cross-connection rates are based.[188] These LECs maintain that the equipment serves several functions, such as a "point of termination" or demarcation between their network and the interconnector's network,[189] an interface between the parties' networks,[190] a location for isolation of trouble and determining responsibility for repair,[191] and an "equal level test point" where the LEC can hand off an industry-standard DS1 or DS3 signal.[192] LECs generally oppose direct connection from the cage to the MDF.[193]

45. Ameritech's original tariff filing required the interconnector to purchase an Ameritech provided POT bay.[194] However, on August 13, 1993, Ameritech filed Transmittal No. 755, which unbundled POT bays as a separate rate element and permitted the interconnector to choose between providing and installing its own POT bay within the interconnection space or using one provided by Ameritech.[195] The POT bay that Ameritech supplies provides both signal equalization and test access capabilities, thereby qualifying as an equal level signal point. The POT bay that the interconnector provides is a passive termination panel with test access but no equalization capability.[196] SWB also allows interconnectors to provision their own POT frames and DS1/DS3 interconnection

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[188] Ameritech Direct Case, Appendix A at ii; Bell South, Direct Case, Exhibit 4 at 8; NYNEX Direct Case, Appendix A at 5; Pacific Direct Case at 12; SNET Direct Case at 7; SWB Direct Case at 15; US West Direct Case at 57.

[189] *See, e.g.*, SWB Direct Case at 15-20; US West Direct Case at 7-9, Exhibit 4. BellSouth asserts that if the POT bay were eliminated, it would still have to terminate its cables somewhere or develop a method to tag and identify these cables within the collocation space. BellSouth Direct Case, Exhibit 4 at 7-9.

[190] *See*, e.g., SWB Direct Case at 15.

[191] *See e.g.*, SNET Direct Case at 7; Nevada Direct Case at 8. *See also* SWB Direct Case at 15-16.

[192] *See, e.g.*, US West Direct Case at 57 (referring to POT bay as "DSX").

[193] *See, e.g.*, SWB Direct Case at 16; Pacific Direct Case at 45-46; United and Central Direct Case at 9-10 (direct connection would result in delays in testing and maintenance, and would affect service quality); US West Direct Case at 57.

[194] Ameritech Transmittal No. 697, filed February 16, 1993.

[195] Ameritech Transmittal No. 730, Description and Justification at 1-3, filed August 13, 1993.

[196] Ameritech *Ex Parte*, filed June 3, 1994.

arrangements.[197] US West's DSX (POT bay) is placed within the interconnector's leased physical space.[198]

46. Bell Atlantic, CBT, GTE, Lincoln, Nevada, Rochester, United and Central do not include the POT bay as a part of the investment on which their cross-connection rates are based.[199] GTE requires the interconnector to provide the cabling from the interconnector's equipment to the DSX cross-connect panel.[200] According to GTE, the cross-connect panel is located in the POT bay, which is part of GTE's normal DS1 or DS3 lineup.[201] GTE states that the patch panel is the only component that is dedicated to the interconnector.[202] Nevada uses a jack as the point of demarcation between an interconnector and Nevada's facilities and installs cabling to interconnect the jack with the DS1/DS3 cross-connect panel.[203] United and Central state that they do not require a POT frame or POT bay but they do require a relay rack and DSX-1 or DSX-3 cross-connect panel for terminating the interconnector's facilities and recover the investment in this equipment through the cross-connection rate elements.[204]

47. SWB asserts that it applies in-place factors to vendor's material prices to estimate the amount of investment required in plant and equipment when only material prices are known.[205] SWB states that its in-place factors are ratios of material cost to total booked cost for recently completed plant and equipment additions.[206]

48. Oppositions. Teleport, ALTS, and TDL assert that the POT bay is an unnecessary piece of equipment that merely increases interconnectors' costs.[207] ALTS argues

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[197] SWB Direct Case at 15-16.

[198] US West Direct Case at 57.

[199] Bell Atlantic Rebuttal, Attachment at 6 n.15; CBT Direct Case, Exhibit A at 8; GTE Direct Case at 20; Lincoln Direct Case at 8; Nevada Direct Case at 8; Rochester Direct Case at 5; United and Central Direct Case at 9.

[200] GTE Direct Case at 20.

[201] GTE Direct Case at 20.

[202] GTE Direct Case at 20.

[203] Nevada Direct Case at 8.

[204] United and Central Direct Case at 9.

[205] SWB Direct Case at 14.

[206] SWB Direct Case at 14.

[207] Teleport Opposition, Appendix A at 1-3; TDL Opposition at 17-18; ALTS Opposition at 27.

that if POT bays are for the collocator's benefit, they should at least be made optional.[208] Teleport argues that the POT bay interferes with channel assignment and introduces a new point of failure in the network. Teleport maintains that the point of termination between the parties' networks should be the interconnector's cage itself, as permitted by Ameritech.[209] Teleport alleges that over $5 of NYNEX's and Pacific Bell's DS1 monthly cross-connect charges are related to the POT Bay.[210]

49. Further, Teleport questions the use of a POT bay as an equal level test point. Teleport contends that for proper equal level testing, circuit levels must be equalized at the point of cross-connection, which is usually the MDF. Moreover, Teleport asserts, equal level test point POT bays require the installation of unnecessary repeaters because they limit the distance a signal can travel without requiring a repeater. Teleport considers Ameritech's requirement of an interconnector-supplied "passive" POT bay a reasonable compromise.[211]

50. Rebuttals. LECs reply that POT bays are a necessary interface between the LEC's and the interconnector's facilities.[212] BellSouth submits that without a POT frame that mechanically assigns cable pairs, it will have to keep track of cable pair assignments manually -- and incur additional recordkeeping costs.[213] Several LECs object to Teleport's assertion that POT bays increase the need for repeaters.[214] Pacific maintains that Teleport does not propose elimination of the POT bay, but simply recommends that the point of termination be moved into the cage. According to Pacific Bell, this raises unacceptable security and liability issues.[215] In addition, Pacific asserts that Teleport's approach does not comply with Bellcore's requirement that a POT be an equal level test point for setting signal parameters.[216] BellSouth states that the cost of a POT bay represents only five percent of the monthly cost for a DS1

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[208] ALTS Opposition at 27.

[209] Teleport Opposition, Appendix A at 2.

[210] *Id.*, Appendix A at 1.

[211] *Id.*, Appendix A at 3-4.

[212] *See, e.g.*, SWB Rebuttal at 22; NYNEX Rebuttal at 8. *See also* Letter from Anthony M. Alessi, Director, Federal Regulations, Ameritech, to Mr. William F. Caton, Secretary, FCC, (filed December 20, 1993) (asserting that without at least an interconnector-provided POT bay, there is no point at which Ameritech's cables can be isolated from the customer's equipment for the purpose of trouble resolution).

[213] BellSouth Rebuttal at 9; Ex Parte

[214] *See, e.g.*, NYNEX Rebuttal at 8; US West Rebuttal at 17.

[215] Pacific Rebuttal at 33-37. Pacific prefers locating the POT bay in a common area. *Id.* at 36-37.

[216] Pacific Rebuttal at 34.

cross-connect and four percent of the monthly cost for a DS3 cross- connect.[217] Pacific argues that the actual charge that the POT Bay adds to the DS1 cross-connect is $0.71 each month.[218]

b. Repeaters

51. Direct Cases. Bell Atlantic, BellSouth, US West, Pacific, and Ameritech include the cost of repeaters in the cost to provision DS1 or DS3 cross-connection service. Bell Atlantic contends that repeaters are needed on every circuit to ensure the quality of service to the customer and to prevent potential degradation to other customer's circuits.[219] Bell Atlantic assumes that 100 percent of cross-connected circuits will require repeaters.[220] Bell Atlantic estimates that repeaters comprise 95 percent of the DS1 connection service rate and 77 percent of the DS3 connection service rate.[221] BellSouth submits that it provides repeaters when the length of the cable between the customer's equipment and the cross-connect frame exceeds the distance limitations delineated in the ANSI standard.[222] BellSouth assumes that 10 percent of the cross-connection arrangements would require repeaters in developing its rates for cross-connection.[223] US West asserts that the distance limitation for its standard cable types for a DS1 is 85 feet and for a DS3 is 27 feet. US West states that its rates include charges for repeaters on a majority of circuits.[224] Pacific filed tariff revisions to include repeaters in the averaged rates for cross-connection, subsequent to the filing of its direct case.[225] Pacific states that repeaters are required when the distance between an interconnection panel and a network element exceeds 450 feet for a DS3 and 655 feet for DS3.[226] Ameritech's original expanded interconnection tariff included the cost of repeaters on every circuit.[227] On August 13, 1993, Ameritech filed Transmittal No. 730 to, *inter alia*, unbundle repeaters from cross-connection rates, and establish separate DS1 and DS3 repeater

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[217] Bell South Rebuttal at 8-9.

[218] Pacific Rebuttal at 37.

[219] Bell Atlantic Direct Case, Attachment B at 25.

[220] *Id.*

[221] *Id.*

[222] BellSouth Direct Case, Exhibit 4 at 6.

[223] *Id.*

[224] US West Direct Case at 54-55.

[225] Pacific Transmittal No. 1719, filed June 7, 1994.

[226] Pacific Transmittal No. 1719, Description and Justification at 2-1, filed June 2, 1994.

[227] Ameritech Direct Case at 17.

rate elements. Pursuant to Transmittal No. 730, Ameritech requires repeaters under the following circumstances: (1) when the interconnector self-provisions a passive POT bay and the distance between the interconnector's transmission equipment is more than 655 feet for DS1s and 450 feet for DS3s; or (2) when the interconnector elects to use Ameritech's signal level test point POT bay and the distance between the interconnector's transmission and Ameritech's equipment is more than 85 feet for DS1s and 27 feet for DS3s.[228]

52. CBT, GTE, Lincoln, NYNEX, Nevada, SNET, SWB, Rochester, United and Central do not include the cost of repeaters in the cost to provision DS1 or DS3 cross-connection service.[229] NYNEX, GTE, and SNET state that customers are responsible for providing repeaters if they are required.[230] Nevada claims that repeaters are not needed because of the short distance between the interconnector's equipment and its special access facilities.[231]

53. Oppositions. ALTS contends that the Commission should reject required repeaters in the absence of an exceptional showing of necessity based on credible technical information.[232] MFS, Sprint, TDL, and Teleport contend that the repeaters required by Bell Atlantic and US West are technically unnecessary and needlessly increase the cost of physical collocation.[233] Teleport alleges that Bell Atlantic and US West's requirement that an interconnector purchase repeaters adds $10.62 and $13.44 per DS1 per month, respectively.[234] MFS asserts that Bell Atlantic and US West have the most expensive rates for cross-connection in the country and that both require a repeater for all or most cross-connects, regardless of the length of the cable that actually connects the collocator's equipment to the LEC's main or intermediate distribution frame.[235] MFS submits that because several LECs permit collocators to provide their own repeaters within their collocated cages when such equipment is necessary, the Commission should require Bell Atlantic and US West to adopt

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[228] Ameritech Transmittal No. 730, Description and Justification at 6, filed August 13, 1993.

[229] CBT Direct Case, Exhibit A at 8; GTE Direct Case at 40; Lincoln Direct Case at 7; NYNEX Direct Case, Appendix A at 20; Nevada Direct Case at 7; Rochester Direct Case at 5; SNET Direct Case at 5; SWB Direct Case at 15; United and Central Direct Case at 8.

[230] NYNEX Direct Case at 20; GTE Direct Case at 19; SNET Direct Case at 5-6.

[231] Nevada Direct Case at 7-8.

[232] ALTS Opposition at 27-28.

[233] MFS Opposition at 14; Sprint Opposition, Appendix A at 15; TDL Opposition at 17; Teleport Opposition at A1.

[234] Teleport Opposition, Appendix A at 1.

[235] MFS Opposition at 14.

similar requirements.[236] MCI claims repeaters are unnecessary and urges the Commission to make the repeater optional and remove it from cost and rate calculations.[237] ALTS observes a wide disparity in the LECs' use of the equipment, noting that even LECs requiring repeaters employ different standards for their necessity.[238]

54. Rebuttals. LECs generally defend the need for repeaters.[239] BellSouth objects to Teleport's suggestion that repeaters be unbundled from the cross-connect element, maintaining that a repeater is not an optional element because its necessity is determined by the availability of space in a central office. BellSouth asserts that because the need for repeaters is beyond the control of the interconnectors, it is reasonable to average this cost across interconnection arrangements.[240] BellSouth states that the cost of repeaters represents no more than 18 percent of cross-connect costs.[241] Ameritech states its repeater rate of $7.88 per month is properly based on the apportionment of one repeater's share of the cost of a repeater bay, plus one repeater's share of the cost of a repeater panel, plus the cost of one DS1 repeater.[242] US West argues that ALTS objects to paying averaged rates, as opposed to paying for only the cabling necessary for individual interconnections.[243] US West notes that it averaged "no repeater" situations with "two repeater" situations.[244]

4. Bell Atlantic's Rates for Cable Racking

55. Direct Cases. Pursuant to Transmittal No. 557, filed on February 16, 1993, Bell Atlantic's rates for physical collocation connection service covered the cost of network cable rack, repeaters, and coaxial cable.[245] On July 16, 1993, Bell Atlantic submitted

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[236] MFS Opposition at 14-15.

[237] MCI Opposition at 10.

[238] ALTS Opposition at 27-28 (contrasting BellSouth's use of the ANSI standard with Bell Atlantic's requirement that repeaters are required for every circuit).

[239] *See, e.g.*, Bell Atlantic Rebuttal, Attachment at 6; SWB Rebuttal at 20; BellSouth Rebuttal at 9-10; US West Rebuttal at 15-17.

[240] BellSouth Rebuttal at 9-10.

[241] *Id.* at 9.

[242] Ameritech Rebuttal at 3.

[243] US West Rebuttal at 13-14. According to US West, the Commission has specifically rejected ICB rate structures. *Id.*

[244] US West Rebuttal at 16.

[245] Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 57, Section 3.1.1 (filed February 16, 1993).

Transmittal No. 585 to unbundle network cable rack from its rates for DS1 and DS3 connection service.[246] This unbundled rack rate was developed on the basis of an interconnector using a dedicated path between its cage and Bell Atlantic's frame. On April 1, 1994, Bell Atlantic filed Transmittal No. 645 to restructure the network cable rack rate element from a per foot, per service rate to a per service only rate.[247]

56. Oppositions. MFS argues that Bell Atlantic's requirement that interconnectors purchase a dedicated cable rack for each cross-connect order is unreasonable because cable racks routinely support multiple cables.[248] Teleport asserts that Bell Atlantic has set its rate for racking at a "ridiculously high" level.[249]

57. Rebuttals. Bell Atlantic claims that it spreads the racking investment over the number of cross-connections that interconnectors in an average central office were expected to demand.[250]

5. Floor Space Costs

58. Direct Cases. BellSouth, CBT, Nevada, NYNEX, Rochester, United and Central base their floor space rates on embedded cost (*i.e.*, actual historical cost or book value) of land and building, claiming that this is a standard practice that avoids the difficulty of obtaining detailed information on the market value of central offices.[251] These LECs develop recurring rates for floor space by applying annual cost factors for depreciation, cost of money, income taxes, property taxes, maintenance expenses, and administrative expenses to the embedded value of land and building investment assigned to interconnectors.

59. Bell Atlantic, SWB, and US West contend that the proper basis for rental rates is the current cost at market value.[252] Bell Atlantic and SWB calculate the market rental value of standard commercial office space using a published real estate industry source, the Building Owners and Managers Association's (BOMA) *Experience Exchange Data Report*, and adjust

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[246] Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 585, Section 3.1, Workpaper 4-2, Workpaper 4-3 (filed July 16, 1993).

[247] Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 645, Description & Justification at 1-2 (filed April 1, 1994).

[248] MFS Opposition at 15-16.

[249] Teleport Opposition, Appendix A at 5.

[250] Bell Atlantic Rebuttal, Appendix A at 4.

[251] BellSouth Direct Case, Exhibit 4 at 3-4; CBT Direct Case at 7; Nevada Direct Case at 7; NYNEX Direct Case at 18; Rochester Direct Case at 4 n.8; United and Central Direct Case at 6-7.

[252] Bell Atlantic Direct Case at 20; SWB Direct Case at 10-11; US West Direct Case at 45-48.

that value with factors from a second source of data, R.S. Means' *Building Construction Cost*, to account for differences in the costs of constructing central office space and commercial office space.[253] Bell Atlantic asserts that the costs that it identified as "administrative" in its February 16, 1993 collocation filing, which the Commission disallowed in the *Physical Collocation Tariff Suspension Order*, are justified because such costs are not reflected in the R.S. Means data.[254] Bell Atlantic further avers that it differs from those that typically use R.S. Means data because, unlike such other users, Bell Atlantic must make complex assessments of its needs for space within telecommunications offices, in light of the additional occupancy required under the Commission's collocation mandates.[255] SWB states that the use of BOMA data results in rates that do not include any unusual overheads.[256] US West develops its floor space rates using pricing information obtained from two real estate brokerage firms.[257] US West explains that it adjusted the market value component of its floor space rates upward by 17 percent to account for areas used to access the interconnectors enclosure that are common to the building.[258] US West also states that its floor space rates recover property taxes on rental area that is adjusted upward by an additional 40 percent to account for other usable space not common to the building that was created to access the interconnector's enclosure.[259]

60. Ameritech and Pacific base their rates on the current cost of constructing a new central office building (*i.e.*, replacement cost) as derived from R.S. Means data.[260] Pacific asserts that it increased the 100 square feet of land and building investment required for a standard interconnector's enclosure by 30 square feet to account for the additional space required to allow access to the collocation space.[261] Pacific further states that the additional 30 square feet is not available for its own use due to physical collocation and is not part of common access building space.[262] GTOC, GSTC, and Lincoln also base their rates on

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[253] Bell Atlantic Direct Case at 20; SWB Direct Case at 11 (claiming that telephone exchange building construction costs are 1.72 times higher than office building construction costs).

[254] Bell Atlantic, Attachment B at 22.

[255] *Id.*

[256] SWB Direct Case at 11.

[257] US West Direct Case at 21.

[258] US West Direct Case at 17.

[259] US West Direct Case at 22.

[260] Ameritech Direct Case at 13; Pacific Direct Case at 37-42.

[261] Pacific Direct Case at 11.

[262] *Id.* at 11-12.

replacement cost, but use the C.A. Turner Telephone Plant Index in arriving at that cost.[263] SNET develops floor space rates on the basis of replacement cost using actual cost data for recently constructed office space in two of its central offices.[264] Lincoln contends that the important issue is not whether the LEC uses embedded or replacement costs, but whether it chooses a reasonable method for evaluating the cost or value of its central office.[265]

61. Bell Atlantic, CBT, GTOC, GSTC, Nevada, NYNEX, Pacific, US West, United and Central do not base floor space rates on costs in a sample of central offices in calculating their floor space rates.[266] These LECs either use data on every one of their central offices or a methodology that does not require a sample. Ameritech uses a sample of 45 central offices; BellSouth uses 90 central offices; Lincoln uses the one office at which it offers expanded interconnection; Rochester uses the one office at which it proposes to offer expanded interconnection;[267] SNET uses two central offices; and SWB uses every city within its territory that was listed in the BOMA publication in developing each of five state averages for floor space rates.[268]

62. Oppositions. ALTS, MCI, Sprint, and TDL assert that floor space rates should be based on embedded costs.[269] In particular, Sprint argues that the direct cost of floor space to interconnectors is the cost of the LEC's existing floor space not the construction cost for hypothetical space which the LEC is not constructing or a derived rental rate for floor space that the LEC would not be renting, absent expanded interconnection.[270] Sprint further argues that current construction costs are not relevant because many central offices have vacant office space due to a reduction in the size of switches and because LECs are not required to provide

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[263] GTE Direct Case at 12; Lincoln Direct Case at 6-7.

[264] SNET Direct Case at 4.

[265] Lincoln Direct Case at 6.

[266] Bell Atlantic Direct Case, Attachment B at 23; CBT Direct Case, Exhibit A at 7; GTE Direct Case at 11; Nevada Direct Case at 7; NYNEX Direct Case, Appendix A at 20; Pacific Direct Case at 43; US West Direct Case at 51; and United and Central Direct Case at 7.

[267] Ameritech Direct Case at 13; BellSouth Direct Case, Exhibit 4 at 4; Lincoln Direct Case at 7; Rochester Direct Case at 4; SNET Direct Case at 4; SWB Direct Case at 12.

[268] SWB Direct Case at 11. SWB used one city (Little Rock) in developing its floor space rate for Arkansas; two cities (Wichita and Kansas City, MO/KS) in developing an average rate for Kansas; two cities (St. Louis and Kansas City MO/KS) in developing an average rate for Missouri; two cities (Oklahoma City and Tulsa) in developing an average rate for Oklahoma, and seven cities (Dallas, Houston, San Antonio, Austin, Corpus Christi, Fort Worth, and Midland) in developing an average rate for Texas.

[269] ALTS Opposition at 22; MCI Opposition at 8-9; Sprint Opposition, Appendix A at 10; TDL Opposition at 16.

[270] Sprint Opposition, Appendix A at 11.

expanded interconnection where sufficient space does not exist.[271] MFS objects to the use of current cost data because the cost of new construction will be much greater than the costs that the LECs actually incurred in the past when constructing their central offices.[272] MCI and TDL argue that the only methodology for determining floor space rates that will prevent price discrimination is one based on book value, and that the methodology used for floor space rates should be identical to that used to allocate the cost of land and building investment for existing DS1 and DS3 channel termination rates.[273]

63. MFS generally supports the use of BOMA data to establish a base rental rate for floor space because such data are readily ascertainable and ensure adequate compensation to the LECs.[274] MFS argues, however, that the adjustments that Bell Atlantic and SWB make to this base rate to account for differences in building and telephone construction costs results in double recovery because LECs already recover telecommunications-specific costs through non-recurring charges for central office preparation and cage construction.[275] MFS further states that Bell Atlantic's use of a factor to recover administrative costs also results in double recovery because such costs are typically reflected in the comparative rental rates published by BOMA.[276] ALTS and Teleport contend that the LECs have established excessively high rates and have failed to provide the market value data to support such charges.[277] ALTS alleges that GTE's use of replacement cost data to establish floor space costs results in rates that are essentially twice those that would result from the use of embedded cost data or BOMA data.[278] Sprint asserts that Pacific Bell's and US West's use of factors to increase floor space rates to reflect space used to provide access to collocators' cages should not be permitted because the cost of such space would be recovered in the rate for common space in the central office.[279] MFS argues that Pacific's use of such a factor is unreasonable because the extra space is not dedicated to the exclusive use of the interconnector.[280] PUCO contends that Ameritech included costs in the floor space charge, such as environmental conditioning, and

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[271] Sprint Opposition, Appendix A at 12-13.

[272] MFS Opposition at 8

[273] MCI Opposition at 8-9; TDL Opposition at 16.

[274] MFS Opposition at 9.

[275] *Id.*

[276] *Id.* at 6.

[277] ALTS Opposition at 21-22; Teleport Opposition at A5.

[278] ALTS Opposition at 22.

[279] Sprint Opposition, Appendix A at 13.

[280] MFS Opposition at 11.

that these costs are also included in the charge for the central office build-out rate.[281]

64. Rebuttals. Ameritech, GTE, and US West reject the use of BOMA data for developing floor space rates because such data reflect operating costs for commercial buildings in major metropolitan areas which provide different features than those that are available in central office buildings.[282] Bell Atlantic, BellSouth, SWB, United and Central maintain that the standards for central office space exceed those for commercial office space and, therefore, the cost of central office space could exceed the rental cost of the same size space in a commercial office building.[283] SWB also disputes that the allegation that its adjustment to basic floor cost data for these standards results in double recovery of costs. SWB argues that this allegation confuses the higher cost of telephone exchange buildings with the specific and additional cost of modifying these buildings for interconnector occupancy.[284] Ameritech asserts that its use of R.S. Means data to develop floor space costs and its charges for central office buildout do not result in double recovery of costs because the R.S. Means data provide information applicable to a typical central office, and Ameritech must recover the costs of customizing the interconnector's space.[285] United and Central also argue that they do not recover telecommunications-specific construction costs through their nonrecurring charges for central office preparation and cage construction.[286] Bell Atlantic argues that it adjusts market real estate prices to account for the additional costs of interconnector occupancy that are unique to telephone company operations and are not reflected in benchmark real estate prices for comparable space.[287] NYNEX asserts that the use of embedded costs provides an effective check against price discrimination because it is the same method used to allocate and cost land and building investment for existing DS1/DS3 channel termination rates.[288] Pacific maintains that embedded costs are irrelevant to rates under price caps, and that new services may be based on incremental costs.[289]

65. GTE and Pacific contend that current costs are the most relevant because

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[281] PUCO Opposition at 8.

[282] Ameritech Rebuttal at 6 n.19; GTE Rebuttal at 9; US West Rebuttal at 39-40.

[283] Bell Atlantic Rebuttal at A-1; BellSouth Rebuttal, Appendix I at 2; SWB Rebuttal at 8; United and Central Rebuttal at 4.

[284] SWB Rebuttal at 8.

[285] Ameritech Rebuttal at 7.

[286] United and Central Rebuttal at 4.

[287] Bell Atlantic Rebuttal at A-1.

[288] NYNEX Rebuttal at 6.

[289] Pacific Rebuttal at 25-26.

interconnection will exhaust central office space, requiring LECs to build new space at current costs.[290] Pacific further argues that current costs are a reasonable proxy for the long run incremental cost incurred as a result of satisfying the demand for floor space for physical collocation, and pricing based on long run incremental cost results in the economically efficient allocation of resources used to serve those customers that are willing to pay those costs caused by their demand.[291] US West argues that the market value of collocation space in the same geographic area as the central office is the most appropriate value of that space because an interconnector is substituting US West's real estate for real estate it would otherwise have to purchase or lease on the open market were it not for regulatory mandates.[292] Pacific and US West state that their adjustments to floor space rates for the general provision of access to the interconnectors' space are reasonable because there will be areas such as corridors and hallways used primarily by interconnectors that are no longer usable by the LECs for their own business purposes.[293]

6. Power Costs

66. Direct Cases. Bell Atlantic, Nevada, SNET, SWB, and US West all use equations to compute the costs of the AC power included in the direct cost of DC power.[294] Bell Atlantic, for example, calculates the monthly cost of converting AC power to DC power by multiplying the average cost per kilowatt hour by the average hours per month, by the rectifier load, and by the total discharge load.[295] Nevada uses separate equations to calculate the costs of AC power and DC power.[296]

67. Ameritech, GTE, and Lincoln use equations to directly calculate the cost of DC power.[297] Ameritech, for example, calculates the cost of DC power per fuse amp by multiplying voltage DC per fuse amp by annual kilowatt hours, by average cost per kilowatt

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[290] GTE Rebuttal at 10; Pacific Rebuttal at 17-19.

[291] Pacific Rebuttal at 17.

[292] US West Rebuttal at 38.

[293] Pacific Rebuttal at 26; US West Rebuttal at 45.

[294] Bell Atlantic, Direct Case, Attachment B at 24; Nevada Direct Case, Appendix E; SNET Direct Case at 5; SWB Direct Case, Appendix 2, Exhibit 14; US West Direct Case at 52.

[295] Bell Atlantic Direct Case, Attachment B at 24.

[296] Nevada Direct Case Appendix E.

[297] Ameritech Direct Case at 16; GTE Direct Case at 18; Lincoln direct Case at 7.

hour, adding the annual incremental cost of air conditioning,[298] and dividing by 12.[299]

68. NYNEX has no AC power costs in the cost of DC power.[300] NYNEX develops the costs of DC power using an engineering study of a typical central office power plant configuration to identify the investment and power capacity (measured in amps) required for such an office.[301] NYNEX divides the power plant investment by the power plant capacity to derive an investment per amp.[302] NYNEX multiplies the investment per amp by a carrying charge factor which was based on ARMIS data to derive a DC cost per amp.

69. Pacific includes AC power costs used to operate its network as part of the maintenance factor of each equipment account.[303] Pacific develops its DC power generation recurring costs based on a model central office power serving arrangement that includes a back-up generator, power plant, cable, cable racking and the battery distribution fuse bay.[304] Pacific divides each element of the model by the number of amps that item of equipment is capable of providing.[305] Pacific applies annual cost factors to the per amp investment to develop annual recurring costs.[306] Pacific's calculation also reflects the land and the building required to house the power equipment.[307]

70. BellSouth, CBT, United and Central appear to include all of their AC power costs in their floor space costs.[308] Rochester does not use an equation to calculate AC power

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[298] Ameritech calculates the incremental cost of air conditioning by multiplying the average DC per fuse amp by annual kilowatt hours by the coefficient of performance by average cost per kilowatt hour. Ameritech Direct Case at 16-17.

[299] Ameritech Direct Case at 5.

[300] NYNEX Direct Case, Appendix A at 20.

[301] *Id.* Appendix A at 3.

[302] *Id.*

[303] Pacific Direct Case at 43.

[304] *Id.* at 14-15.

[305] *Id.* at 14.

[306] *Id.* at Appendix I.

[307] *Id.* at 15.

[308] BellSouth Direct Case, Exhibit 4 at 5; CBT Direct Case, Exhibit A at 8; United and Central Direct Case at 13.

costs in developing its per kilowatt hour DC power costs.[309]

71. SWB states that the recurring and nonrecurring POT power arrangement rate elements are set to recover the costs of installing and maintaining the physical facilities required to provide power from the central office power equipment to the interconnector's space.[310] SWB explains that the POT power arrangement nonrecurring rate element recovers power cables, terminating equipment, and the distribution panel installed in the POT frame.[311] SWB further states that the POT power arrangement recurring rate element recovers the expenses expected to be incurred by SWB in maintaining and administering the equipment.[312] SWB contends that the DC transmission power monthly rate element is set to recover the costs of producing the required amounts of DC power offered, including the cost of the required AC power and the costs associated with equipment used to convert AC to DC power.[313]

72. SWB states that it applies in-place factors to a vendor's material price to estimate the plant investments required to produce a particular function.[314] SWB asserts that the in-place factors are developed from the ratio of material cost to total booked cost on recently completed plant and equipment additions.[315]

73. BellSouth states that the power plants in the central offices for which physical collocation was requested are either electronic digital or electronic analog (depending on the switch type at that central office). BellSouth explains that it, therefore, assumes an equal split of collocation arrangements in central offices having each type of power plant in developing the average cost of power in its floor space rates.[316]

74. Oppositions. Teleport avers that LEC recurring rates for power vary between $199 and $424 for 40 amps, and investment ranges from $6,343 to $258,915.[317] MCI claims

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309 Rochester Direct Case at 4.

310 SWB Direct Case at 13.

311 *Id.*

312 *Id.*

313 *Id.*

314 *Id.* at 14.

315 *Id.*

316 BellSouth Direct Case, Exhibit 4 at 5.

317 Teleport Opposition, Appendix A at 6.

that LECs' recurring rates for power range from $0.20 to $8.88 per DS1.[318] ALTS alleges that GTE's charges for power apparently will sometimes exceed its floor space rate.[319] Teleport asserts that SWB proposes a rate of $2,191 for the installation of what Teleport presumes are 110 volt plugs.[320] MFS alleges that NYNEX's power charges in New York are excessive because NYNEX requires collocators to pay twice for dual power feeds, which MFS argues is contrary to standard industry practice.[321] ALTS argues that US West double recovers for power and equipment because US West places equipment and power costs in some functions and also charges the interconnector for extra power for the cost of incremental air conditioning to cover the heat generated by equipment.[322]

75. Rebuttals. Bell Atlantic argues that its investment for 40 amps of DC power is $17,261, not $258,915, as Teleport alleges.[323] GTE replies that there is no cost relationship between its charges for DC power and floor space.[324] SWB states that its house electric rates recover the costs of installing overhead fluorescent lighting, electrical outlets, early warning fire detection, conduit and wire and all associated contract labor, rather than just a few 110 volt plugs as Teleport alleges.[325] NYNEX maintains that its tariff rates for power provide for redundancy, using two feeds, as is standard industry practice.[326] Pacific Bell claims that it develops its DC power costs based on the assumption that all components of the power plant are used at full capacity, which results in lower rates than when compared to calculating costs on the basis of average power plant capacity actually used.[327]

7. Cross-Connection and Termination Equipment Costs

76. Direct Cases. Ameritech's DS1 and DS3 cross-connection cable/cable support

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[318] MCI Opposition at 8.

[319] ALTS Opposition at 29.

[320] Teleport Opposition, Appendix A at 4.

[321] MFS Opposition at 17.

[322] ALTS Opposition at 25.

[323] Bell Atlantic Rebuttal at A-6.

[324] GTE Rebuttal at 10-11.

[325] SWB Rebuttal at 9.

[326] NYNEX Rebuttal at 5.

[327] Pacific Rebuttal at 31.

function recurring costs are for cabling, racking, and ABAM jumper cabling.[328] Ameritech's DS1 and DS3 recurring cross-connection equipment functions consist of costs associated with the DS1 and DS3 repeater elements.[329] The investments on which Ameritech bases these costs include a prorated portion of a repeater bay, a repeater panel, and a DS1 repeater.[330] Ameritech's recurring termination equipment function consists of costs that were included in its DS1 and DS3 Termination panel elements. Ameritech's investments in the termination equipment recurring function are for the prorated share of one DS1 or DS3 termination in a passive point of termination bay for the prorated share of one DS1 or DS3 termination in a DS1 or DS3 termination panel.[331]

77. BellSouth's DS1 and DS3 cross-connect elements consist of the cable connection between the collocation space and the central office distributing frame (DSX frame) as well as the cross-connect panels on the DSX frame, interface panels, cable rack, bay framework, and other supporting hardware.[332]

78. Bell South states that the DS1 and DS3 cross-connect equipment will not have 100 percent utilization.[333] BellSouth further explains that the equipment will be used by various interconnectors simultaneously and, therefore, growth capacity as well as maintenance capacity are required.[334] BellSouth also states that the .85 utilization is BellSouth's estimate of the objective utilization of DS1 and DS3 cross-connect equipment and that this factor is typical for similar DS1 and DS3 cross-connect equipment used in other DS1 and DS3 offerings.[335]

79. BellSouth states that the IFCPC labor costs are costs associated with the engineering and installation of the DS1 and DS3 equipment and is capital labor.[336] BellSouth also maintains that this labor cost is incurred each time an additional 28 DS1 or 12 DS3 cross-connect capacity is installed and the IFCPC labor cost, therefore, is part of the installed

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328 Ameritech Direct Case at 6-7.

329 Ameritech Direct case, Appendix A at i.

330 *Id.*, Appendix A at i.

331 *Id.* at i.

332 BellSouth Direct Case, Exhibit 4 at 8.

333 *Id.* at 10.

334 *Id.*

335 *Id.*

336 BellSouth Direct Case, Exhibit 4 at 11.

investment for each 28 DS1 and 12 DS3 cross connect capacity.[337] BellSouth contends that utilization is always applied to the total capitalized investment for equipment and, therefore, the .85 is applied to IFCPC capitalized labor cost.[338]

80. NYNEX bases its expanded interconnection channel termination rate element on cross-connection and termination equipment investments comprised of four components: (1) a termination at NYNEX's digital service cross-connection (DSX) frame; (2) the cable between the DSX frame and the point of termination intermediate frame; (3) a termination at the NYNEX side of the POT frame; and (4) a termination at the interconnector-customer's side of the POT frame.[339] In addition, NYNEX calculates termination and cable investments from vendor price information, and engineering and labor costs associated with the placement of the equipment in the central office.[340] NYNEX derives the fully distributed monthly recurring costs associated with DS and DS3 office channel termination rates by applying ARMIS carrying charge factors to the termination and cable investments associated with providing the office channel termination.[341]

81. GTE's DS1 and DS3 Cross Connect rate recovers the cost for the DSX-1 and the DSX-3 cross-connect panel, respectively.[342] GTE develops costs for this element by taking GTE's material cost for a fully equipped DSX-1 or DSX-3 bays and dividing by the bay's DS1 or DS3 capacity.[343] GTE includes the cost for racks in the cross-connect panel (patch panel) and cable space (space occupied on the rack) charges.[344]

82. Pacific identifies the investment associated with the recurring cable and cable support function by estimating the average material and labor costs associated with placing a cable between the interconnector's space and Pacific's facilities.[345] Pacific develops the investment associated with the recurring cross-connection equipment function on the equipment required for interconnection in the Los Angeles-Madison office. In addition, Pacific computes a state-wide average investment based on in-service DS1 volumes in the

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337 BellSouth Direct Case, Exhibit 4 at 10-11.

338 BellSouth Direct Case, Exhibit 4 at 11.

339 NYNEX Direct Case, Appendix A at 5.

340 *Id.*, Appendix A at 5-6.

341 *Id.*, Appendix A at 5.

342 GTE Direct Case at 26.

343 *Id.*

344 *Id.* at 27.

345 Pacific Direct Case at 16.

Madison office divided by the in-service volumes for all collocation offices.[346] Pacific also derives the nonrecurring cross-connection provisioning function direct costs by: (1) identifying the work groups involved in provisioning DS1 and DS3 cross-connections to collocators; (2) identifying the specific tasks necessary to provision DS1 and DS3 cross- connections; and (3) multiplying average task times by the actual work time labor rate to determine the costs associated with each work group; and (4) summing the work group costs to identify total costs for installation.[347] Finally, Pacific's recurring termination equipment function consists of termination equipment unit investment associated with a digital interface panel, a digital cross-connect panel, a digital cross-connect system and a DSX termination.[348]

83. SWB allows interconnectors to provision their own POT frames and DS1/DS3 interconnection arrangements.[349] SWB's interconnection arrangement is comprised of the facilities that are installed in the POT frame,[350] including two digital cross connect (DSX-1 or DSX-3) panels, jumpers, a fuse panel, cabling, and associated hardware.[351]

84. SNET's recurring point of termination costs include the installed costs for the DS1, DS3, DSX1, and DSX3 panels that establish a demarcation point between the collocator and SNET.[352]

85. US West calculates its costs for the cross-connect element based on the investment for cabling, DSX panels, repeaters and fiber optic terminals required to provide virtual and physical collocation service under four different provisioning models.[353] US West estimates that 90 percent of the time the cross-connection would be physical and 10 percent would be virtual.[354]

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[346] *Id.* at 17.

[347] *Id.* at 32.

[348] *Id.* at 12.

[349] SWB Direct Case at 15-16.

[350] SWB requires the interconnector to purchase the DS1 (DS3) Transmission Arrangement when the interconnector self-provisions the interconnection arrangement. According to SWB, the facilities placed by the interconnector would not include the cable arrangements for transmission of the DS1 or DS3 signals. As a result, SWB's DS1 (DS3) Transmission Arrangement includes four fire resistant cables, which provide a transmit and receive path between the POT frame and the DS1 (DS3) interconnect DSX-1 (DSX-3) panel.

[351] SWB Direct Case at 15-16, Appendix 2 at 2.

[352] SNET Direct Case, Attachment 1.

[353] US West Direct Cost at 54-55.

[354] US West Direct Case at 55.

86. BellSouth, Lincoln, Nevada, SNET, SWB, United, and Central use a distributed configuration to develop cost estimates for physical collocation tariffs.[355] BellSouth states that it uses a distributed collocation configuration to develop cost estimates because it does not expect to be able to provide adjoining space in every central office so that all interconnectors could be located in the same area.[356] Lincoln states that the interconnector has complete ability to configure its own circuit facility assignment, without interruption by other interconnectors by shared termination equipment.[357] Nevada states that it plans to use a distributed configuration because it estimates that no more than one interconnector will order special access expanded interconnection in any one of the four central offices in which it is available.[358] SNET states that the benefits of a distributed system are quick provisioning, provision of a trouble isolation point, elimination of the need to access the customer's point of presence to provision additional capacity, and the capability for customers to make their own channel assignments.[359] SNET argues that such a system requires approximately $2,000 per cage in additional investment compared to a centralized system.[360] SWB argues that its use of a dedicated configuration minimizes maintenance and repair costs, simplifies and reduces the cost of service provisioning and service tune-up, and ensures network protection and reliability.[361] United and Central maintain that a distributed cross-connection function provides a defined termination point for an interconnector's network and facilitates both the interconnector's and the LEC's access to a point of termination for maintenance, installation and testing.[362] United and Central further argue that the distributed configuration enables an interconnector to "prewire" its network facilities to the cross-connect and simply place an order with the LEC for connection to the LEC's main distribution frame.[363]

87. CBT, GTE, and US West use a centralized configuration to develop cost estimates for physical collocation tariffs.[364] CBT states that it uses a centralized configuration

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[355] BellSouth Direct Case, Exhibit 4 at 7; Lincoln Direct Case at 8; Nevada Direct Case at 8; SNET Direct Case at 6; SWB Direct Case at 15; United and Central Direct Case at 8.

[356] BellSouth Direct Case, Exhibit 4 at 7.

[357] Lincoln Direct Case at 8.

[358] Nevada Direct Case at 8.

[359] SNET Direct Case at 6.

[360] *Id.*

[361] SWB Direct Case at 15.

[362] United and Central Direct Case at 8.

[363] *Id.* at 9.

[364] CBT Direct Case, Exhibit A at 8; GTE Direct Case at 19; US West Direct Case at 34.

as much as possible to minimize cost.[365] CBT contends that if a repeater is required to meet an interconnector's request to collocate in a particular location within a wire center, then the cost of the repeater would be charged to the interconnector and prorated among later interconnectors who use the same repeater.[366] GTE argues that a centralized collocation configuration simplifies engineering and installation of equipment because existing equipment lineups are used.[367] GTE also argues that the centralized configuration allows for better maintenance because all the cross-connect equipment is located at common locations in the central office.[368] US West states that this design benefits interconnectors because they are charged only for the portion of the equipment used, versus being charged for the entire cost of equipment.[369]

88. Ameritech, NYNEX, Pacific, and Rochester do not categorize their collocation configurations as either distributed or centralized. Ameritech states that its collocation configuration provides for aggregated repeater bays to serve multiple transmission nodes within a central office.[370] Ameritech also states that it allocates to each interconnector separate repeater shelves to meet service requirements.[371] NYNEX states that it places fiber within the central office and equips the frame for the specific number and type of special access cross-connects on an individual interconnector basis.[372] Pacific contends that it will use the least expensive configuration method and, whether a centralized or a distributed configuration is the one that meets that criterion, depends on such factors as the number of collocators in a central office, the number of expanded interconnection cross-connection circuits, the availability of circuit terminating equipment, the distance between the collocation area and facility area and special access facilities, and the timing of service requests.[373] Rochester's states that it uses a physical collocation arrangement that is neither a centralized nor a decentralized configuration.[374]

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[365] CBT Direct Case, Exhibit A at 8.

[366] *Id.*

[367] GTE Direct Case at 19.

[368] *Id.*

[369] US West Direct Case at 56.

[370] Ameritech Direct Case at 17.

[371] *Id.* at 17-18.

[372] NYNEX Direct Case, Appendix A at 21.

[373] Pacific Direct Case at 44-45.

[374] Rochester Direct Case at 5.

89. Oppositions. Teleport claims that Pacific Bell's and US West's monthly rates for provisioning a single cross-connect order, $179.20 and $487.00, respectively, include depreciation, cost of money, and taxes. Teleport maintains, however, that there should be no investment for this nonrecurring charge. MCI argues that the LECs' rates for the DS1 cross-connect rate element range from $3.40 to $21.63.[375]

90. Rebuttals. US West states that there is no direct investment related to its nonrecurring DS1 cross-connection rate, but that depreciation, cost of money, and tax expense are part of an administrative cost factor. US West contends that such factor includes annual expenses or carrying charges associated with an allocation of investments that are related to the administrative expenses.[376] Pacific Bell argues that its cross-connection provisioning costs are reasonably based on the assumption of 2.5 hours of total provisioning time.[377] GTE states that its rate structure does not include the cost of the jumper cable from the interconnector's cage to the termination point because the cable is to be provided by the interconnector.[378]

8. Security Costs

91. Direct Cases. All LECs, except for SNET and Rochester, require a security escort, although some impose this requirement under limited circumstances.[379] LECs contend that security escorts are needed to protect central offices from unsupervised interconnector-employees, to protect interconnectors' property, and to ensure network security and reliability.[380] Ameritech, Bell Atlantic, and Nevada require escorts in cases where interconnectors must pass through unsecured central office space.[381] BellSouth and GTE require a security escort where it is not feasible to separate areas housing their network from physical collocation space.[382] BellSouth requires that interconnectors be escorted by a trained network technician in those central offices when the interconnector is working in common

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[375] MCI Opposition at 8.

[376] US West Opposition at 22.

[377] Pacific Rebuttal at 12.

[378] GTE Rebuttal at 11.

[379] The direct costs for a security escort are categorized under the active security function on the TRP charts.

[380] *See, e.g.*, SWB Direct Case at 21; Nevada Direct Case at 9; United and Central Direct Case at 10-11; US West Direct Case at 62.

[381] Ameritech Direct Case at 18; Bell Atlantic Direct Case at 27; Nevada Direct Case at 9 .

[382] BellSouth Direct Case, Exhibit 4 at 12; GTE Direct Case at 4, Attachment 1A at 20.

areas.[383] United and Central require escorts only when an interconnector needs access to common operational areas. NYNEX requires a security escort where a card access system is not available.[384] CBT requires a security escort in the one central office where there is no card access system, but only where access to common areas is necessary.[385] Pacific personnel escort the interconnector to the collocation area in central offices not equipped with an electronic card access system.[386] SWB requires security escorts in locations where separate access to collocation space is not available.[387] US West uses an independent security service which can be contacted through an 800 number, 24 hours per day. US West marks up the rate that it pays for this service to recover the costs of tracking hours and billing. Lincoln believes that it is reasonable to require security escorts any time an interconnector-personnel is on its premises.[388] SNET states that it charges interconnectors only for keys to their dedicated areas and cages because it prohibits access to the rest of the central office.[389]

92. Ameritech, BellSouth, Pacific, Nevada, SWB, GTE, CBT, and Lincoln develop and recover costs for the construction associated with additional security needs attributable to physical collocation.[390] Ameritech's security installation direct cost is based on the initial capital outlay for investment in walls, doors, locks, and keys and the present value of the recurring direct costs related to that investment.[391] BellSouth will provide secured access to collocation areas through the addition of walls, doors, and hallways.[392] Pacific controls access to and within most of its central offices through an electronic card access system.[393] Pacific

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[383] BellSouth Direct Case, Exhibit 4 at 12.

[384] NYNEX Direct Case, Appendix A at 22.

[385] Cincinnati Direct Case, Exhibit A at 8-9.

[386] Pacific Direct Case at 47-48.

[387] SWB Direct Case at 21.

[388] Lincoln Direct Case at 8.

[389] SNET Direct Case at 7-8.

[390] The direct costs for security construction are categorized under the security installation function on the TRP charts.

[391] Ameritech Direct Case at 12-13.

[392] BellSouth Direct Case, Exhibit 4 at 12.

[393] Pacific assesses a charge of $8.70 and $22.20 for new and replacement cards, respectively. *See* Data Request from Jo Ann Goddard, Director, Federal Regulatory Relations, Pacific Bell, to Gregory J. Vogt, Chief, Tariff Division, Common Carrier Bureau (dated April 28, 1994).

derives its security installation direct costs using current vendor information.[394] Nevada provides interconnectors with access to their collocation area through a separate door that leads directly to their caged enclosures.[395] SWB indicates that in some locations electronic access will be implemented to control entry into and exit from the general collocation space.[396] GTE's security installation direct costs include costs for card access systems, partitioned walls, doors and hardware, and making access card modifications to elevators.[397] CBT provides interconnectors with card access to all its central offices, except one, 24 hours per day.[398] NYNEX provides access through a card system, where available, and issues access cards to employees and contractors designated by the interconnector.[399] NYNEX does not, however, develop costs or tariff a rate for security installation.

93. Oppositions. Sprint argues that Pacific Bell's cost for the installation of a security system appears extremely high, assuming that there are four collocators per central office.[400] ALTS asserts that SWB's charges are $30.93 per half hour for escort service and that this rate is unreasonable compared to US West's rate of $10-$15 per hour.[401] ALTS further asserts that SWB proposed excessive nonrecurring charges for security installation that range from $5,196 to $15,130 per interconnector.[402] ALTS also states that GTE's has not justified charges for the installation of equipment that range from $10,000 to $30,000.[403] ALTS further asserts that Bell South has not justified imposing a nonrecurring charge of $12,500 per interconnector for security installation.[404] Teleport claims that Ameritech, Southwestern Bell, Bell South, and GTE filed rates that appear to recover the cost to install an entirely new security monitoring and access system in their central offices.[405] Teleport also asserts that Ameritech proposes a nonrecurring "security" rate of $1,146 and that such rate is

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394 Pacific Direct Case at 33, Appendix M.67.

395 Nevada Direct Case at 9.

396 SWB Direct Case at 21.

397 GTE Transmittal No. 771, Description and Justification, Attachment 1, A9.

398 Cincinnati Direct Case, Exhibit A at 8-9.

399 NYNEX Direct Case, Appendix A at 23.

400 Sprint Opposition, Appendix A at 3.

401 ALTS Opposition at 30.

402 *Id.*

403 *Id.*

404 *Id.* at 31.

405 Teleport Opposition, Appendix A at 5.